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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/052,521	01/23/2002	Mitsumasa Tanaka	06270007AA	7726

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EXAMINER

REKSTAD, ERICK J

ART UNIT	PAPER NUMBER
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2613

DATE MAILED: 12/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/052,521	Applicant(s) TANAKA, MITSUMASA	
	Examiner Erick Rekstad	Art Unit 2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This is a second non-final rejection for application no. 10/052,521 in response to the amendment filed on September 27, 2005 where in claims 1-41 are presented for examination.

Response to Arguments

Applicant's arguments with respect to claims 1-41 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Application Publication US 2002/0154694 to Birch.

[claims 19 and 21]

Birch teaches an image editing method for editing image data which has been coded in accordance with an image coding method (Abstract, Fig. 3). Birch teaches the video is encoded using MPEG-2, which contains I, P and B frames (Abstract, Paragraphs [0038] and [0039]). Birch teaches the method comprises setting an editing target area in the image data which has been coded in accordance with said image coding method (Paragraphs [0049] and [0177]). Birch further teaches the determining

whether a head group which is arranged at a head of the editing target area is a closed group and converting a portion near the head of the editing target area into the closed group in a case where said determining determines that the head group is not the closed group (Paragraphs [0050], [0221], [0224], [0226] and [0227]).

Claims 1-18, 20, and 21-41 rejected under 35 U.S.C. 103(a) as being unpatentable over Birch in view of US Patent 6,104,441 to Wee et al.

[claims 1, 4, 5, 6, 12]

Birch teaches the use of a data analyzer (305 of Fig. 3) for use with an image editing apparatus in order to combine two encoded MPEG streams (Abstract, Paragraphs [0050], [0221], [0224], [0226] and [0227]). Birch teaches the replacement of the B-frames with the last I frame and synthetic B-frames (Paragraph [0227]). Birch does not teach the use of a decoder and an encoder to decode the frames which need to be changed and re-encoding them. Birch does not teach the decoding of the B frames and re-encoding of the B-frames into an image frame which is able to be decoded without referring to an image frame included in a group which is arranged before the head group.

Wee teaches the decoding and re-encoding of only a small number of the frames in order to splice two mpeg streams in a similar stream editor to Birch (Col 3 Line 64-Col 4 Line 8, and Col 5 Lines 26-47, Col 8 Lines 33-61). As shown in Figure 3, Wee specifically teaches the use of an MPEG decoder(170). Wee further teaches the use of an editor (115 in Fig. 2 and 153 in Fig. 3) which converts the encoded frames to the image domain and then reconverts the frames to the compressed domain (Col 5 Lines

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25-47). It would have been obvious to one of ordinary skill in the art at the time of the invention that the editor performs the encoding process. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of replacing B-frames of Wee with the editing method of Birch as a design choice known in the art.
[claims 2 and 8]

Birch teaches the determining whether or not the third type image frame included in the head group is an image frame which is to be decoded by referring to an image frame included in a group which is arranged before the head group (Paragraphs [0226] and [0227]).
[claims 3 and 20]

Birch teaches the replacement of the B-frames with the last I frame and synthetic B-frames (Paragraph [0227]). Birch does not teach the decoding of the B frames and re-encoding of the B-frames into an image frame which is able to be decoded without referring to an image frame included in a group which is arranged before the head group.

Wee teaches the decoding and re-encoding of only a small number of the frames in order to splice two mpeg streams in a similar stream editor to Birch (Col 3 Line 64-Col 4 Line 8, and Col 5 Lines 26-47, Col 8 Lines 33-61). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of replacing B-frames of Wee with the editing method of Birch as a design choice known in the art.
[claims 9, 13, 14, 15, 18, 22, 23, 26, 29, 32, 33, 34, 36, and 39]

As shown above for the rejection of claims 1, 5, 6, 19 and 20, Birch and Wee teach an image editing method for editing image data which has been coded in accordance with an MPEG method. Wee further teaches the detected image frame is fully decoded and re-coded (Col 5 Lines 26-47 and Col 11 Lines 19-26). It would have been obvious to one of ordinary skill in the art at the time of the invention to re-code the B-frames as taught by Wee in the splice method of Birch in order to provide a means of seamlessly splicing encoded streams without fully decoding a full GOP as taught by Wee.

Note, Birch teaches the testing to make sure the first frame is a head image frame and then tests if the GOP is closed as required by claims 13, 14, 16, 33, 34 and 36 (Paragraphs [0226] and [0227]).

[claims 7, 24, 25, 27 and 28]

Wee further teaches the conversion of P-frames to I-frames (113 and 119 in Fig. 2) (Col 5 Lines 37-43 and Col 11 Line 34-Col 12 Line 6). Wee further teaches the converting of the B-frames that appear after the first type image frame which appears first after the head image frame in a case where said determining a type determines that the head image frame of the editing target area is not the first type image frame (123 of Fig. 2) (Col 9 Lines 5-28). Note that 123 shows the stream re-encoded from the first frame to the first I-frame as required by claim 28.

[claims 10, 30 and 35]

Though Birch and Wee do not specifically teach the conversion of the B-frame type to an I-frame type, Wee teaches the conversion of B-frames to P-frame like type

frames and P-frames to I-frames (Col 11 Line 34-Col 12 Line 35). It would have been obvious to one of ordinary skill in the art at the time of the invention to convert a B-frame at the location of the splice to an I-frame by using the conversion techniques taught by Wee in order to provide a valid GOP according to the MPEG standards (Official Notice).
[claims 11 and 31]

Wee teaches the conversion of a B-frame into a one directional B-frame which is able to be decoded without referring to an image frame which is arranged before the head image frame (Col 12 Lines 7-35).
[claims 17 and 37]

Birch teaches the ideal splicing point is at the end of a closed GOP (Paragraph [0176] and [0226]). Wee teaches the conversion of non-ideal slice locations into ideal splice locations (Fig. 2). It would have been obvious to one of ordinary skill in the art at the time of the invention that if the splice is already in the ideal condition that the frames would simply be copied (Official Notice).
[claims 15 and 38]

Wee further teaches the converting of a B-frame into an I-frame and the insertion of this frame into the combined stream (207 Fig. 4 and 129 Fig. 2).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

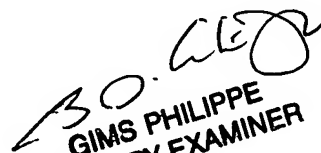
US Patent 6,275,618 to Kodama.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erick Rekstad whose telephone number is 571-272-7338. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on 571-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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